

**UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY
CAMDEN VICINAGE**

**IN RE PAULSBORO
DERAILMENT CASES**

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**Plaintiffs' Reply Brief in Support of their
Motion to Exclude the Expert Report and
Testimony of Defendants' Expert Greg Yarwood, Ph.D.**

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I. INTRODUCTION

Reading Defendants' brief opposing Plaintiffs' motion to exclude Dr. Greg Yarwood's opinion resembles being drawn into a street-corner shell game. Defendants ask the court to change the rules regarding rebuttal opinions. They concede that "the Federal Rules 'make no distinction between the permissible uses of 'regular' experts and 'rebuttal' experts.'"" Defs' brief at 5 (citation omitted). But they argue that, because it is rebuttal, Yarwood's evidence should nevertheless be admitted despite Yarwood's novel methodology relating to UV-A sunlight. Indeed, they contend that Yarwood need employ *no* methodology in order to be able to rebut Dr. Georgopoulos's opinion under Rule 702. But this contention is impertinent, because the fact is, as part of his criticism of Dr. Georgopoulos's opinion, Yarwood *has employed a methodology* – albeit a concededly novel and personal one, the reliability of which has never been tested or peer-reviewed. Accordingly, all aspects of Yarwood's opinions that advance or rely upon his UV-A methodology should be excluded. Further, contrary to Defendants' contention, Dr. Georgopoulos's declaration is not an attempted supplementation of his expert report, but merely proper rebuttal to Dr. Yarwood, and there are no valid grounds to exclude or strike it.

II. ARGUMENT

A. Insofar as Dr. Yarwood's evidence is based on his own novel, untested, un-peer-reviewed methodology, it should be excluded because it is unreliable; its use as rebuttal evidence does not change the admissibility calculus under Rule 702

Defendants argue that Yarwood's opinion should be admissible insofar as it merely critiques Dr. Georgopoulos's opinion. Plaintiffs agree, so long as the opinion Yarwood is permitted to express makes no reference to his methodology that utilizes UV-A concentrations to estimate the OH concentration in the atmosphere. Such methodology heavily infiltrates Opinions 1 and 4 of Yarwood's report, and is completely novel and untested, as Yarwood himself admitted when he testified unequivocally that he has never used nor seen the method used before. *See* Plaintiffs' opening brief at 5, quoting Yarwood dep. at 50:3-8. Therefore, all aspects of Yarwood's opinion that involve his unreliable UV-A methodology are not properly admissible under Rule 702 and should be excluded.¹

The cases on which Defendants rely to argue that Yarwood's opinion should be admitted because it is a rebuttal opinion are readily distinguishable. Most inapt of all in this respect is the primary case on which Defendants rely,

¹ Attached as Exhibit A to this reply brief is a copy of Dr. Yarwood's report, with highlighted portions that, assuming Plaintiff prevails on this motion, should be redacted if the report were presented to the jury.

Crowley v. Chait, 322 F. Supp. 2d 530 (D.N.J. 2004). *Crowley* arose from the insolvency of an insurance company. The expertise at issue in *Crowley* was economic expertise in examining the underwriting files of the insurance company to opine as to whether the files lacked particular documentation needed for proper underwriting. *Crowley* stood on completely different footing than the instant case inasmuch as *scientific* evidence was not involved there; thus, emphasis was not placed on the expert's methodology and there was no need to subject the methodology – standard auditing methodology – to any testing or peer review. *Id.* at 539. Here, Dr. Yarwood's opinion involves *only* scientific evidence and thus his methodology *is* required to be tested and peer-reviewed in order to establish its reliability. But no such testing or peer review ever occurred, and Yarwood admits that his scientific methodology is novel.²

Regardless of whether he is a rebuttal expert or not, Yarwood does not simply get a free pass around the law regarding admission of scientific expert evidence. Yarwood's novel methodology undergirds a considerable portion

² The other case Defendants rely on, *United States v. Velasquez*, 64 F.3d 844 (3d Cir. 1995), involved expertise in handwriting analysis. The Court stated, "even though the district court had recognized handwriting analysis as a field of expertise, the court erred as a matter of law in denying the defense the opportunity to criticize the standards employed in that field of expertise." *Id.* at 848. Unlike Dr. Yarwood, the expert witness who the district court had excluded in *Velasquez* was not proffering his own unique methodology in seeking to rebut the opposing expert.

of his opinion. There is simply no warrant for disregarding the language of and law under Rule 702.³

Next, Defendants accuse Plaintiff of distorting the findings of Hisatsune and Heicklen (“H&H”). But Yarwood himself explicitly *agreed* with Plaintiff about the H&H study. At Dr. Yarwood’s deposition, after he had speculated about a chemical reaction on the surface of a glass container that caused the rapid decay of vinyl chloride to HCL (although he was unable to explain why or how such reaction took place), Dr. Yarwood agreed that neither H&H nor Tuazon had attributed the rapid decay to any such phenomenon, and that he (Yarwood) had not seen it discussed in any published literature. *See* Plaintiff’s opening brief at 8-9, quoting Yarwood dep. at 89:23-90:17; 91:4-19.

Defendants contend that Dr. Yarwood does not have a “glass container theory” as Plaintiff has argued. It is true Dr. Yarwood conceded that rapid decay could take place on surfaces besides glass. Yarwood dep. at 90:15-17 (“Q. Okay. Would you expect it to decay on other surfaces besides glass? A. It could decay on other surfaces besides glass.”). Nevertheless, in this case, in his express testimony cited above and set forth in Plaintiff’s opening

³ Interestingly, Defendants do not defend Dr. Yarwood’s methodology as tested or as generally accepted; they contend only that his methodology is not quite *as* novel as Plaintiff “would have this court believe.” Defs’ brief at 9.

brief, Yarwood attributed the rapid decay observed by H&H *to the glass nature* of the surface.

Yarwood's concession that rapid decay to HCL could take place on other surfaces, depending on the nature of those surfaces, actually *supports* Plaintiffs' position that the vinyl chloride which leaked in Paulsboro on the morning of the derailment decayed rapidly to HCL. At page 11 of their brief, Defendants quote Yarwood's deposition to argue that he believes rapid decay can take place on surfaces other than glass, but "you need to know something about how formyl chloride reacts with particular surfaces." Defs' brief at 11, quoting Yarwood dep. at 98-99. Significantly, Defendants omit the immediately preceding, key testimony needed to place their quote from Yarwood's deposition in proper context:

Q. Okay. And water [droplets are] a surface that would promote decomposition of formyl chloride?

...

A. Water droplets provide a surface – provide surface area. I am not aware of any data that show whether or not that surface causes formyl chloride to decompose.

Yarwood dep. at 98:12-98:24.

It is indisputable that water droplets were present in the atmosphere at Paulsboro on the morning of the derailment, as innumerable witnesses

described seeing the cloud hanging over the area, and the cloud has also been well-documented in photographs. Thus, despite Yarwood's inexplicable and unexplained attribution of rapid decay to the glass surface used in the H&H experiment, Yarwood's own testimony implicitly concedes that Dr. Georgopoulos could be correct in opining that the leaked vinyl chloride in Paulsboro on the morning of the derailment did not remain as unstable formyl chloride but decayed rapidly to HCL. Moreover, by his deposition concessions, Yarwood has shown himself to have been incorrect when he stated in his expert report that H&H's rapid decomposition of formyl chloride to carbon monoxide and hydrochloric acid, purportedly attributable to a chemical reaction occurring on the glass surface, "*is not relevant to conditions in the atmosphere.*" Yarwood report at 7 (last sentence of Opinion 3) (emphasis added). Based on Yarwood's testimony, it is clear he believes that rapid decomposition *can be relevant* to conditions in the atmosphere. It's just that Yarwood himself is aware of no data showing whether a surface provided specifically by *water droplets* facilitates rapid decomposition.

In any event, insofar as Yarwood relies on his UV-A methodology to criticize Dr. Georgopoulos's opinion, Yarwood's evidence should be excluded. The court should order that Yarwood is precluded from making any reference to his UV-A methodology, directly or indirectly, and, if his

report were to be presented to the jury for any reason, that it first be redacted to exclude all references to Yarwood's UV-A methodology.

B. Dr. Georgopoulos's declaration is proper support for Plaintiffs' motion to exclude Dr. Yarwood's opinion insofar as that opinion is based on Yarwood's UV-A methodology

As an initial matter, Defendants blur the facts concerning what Plaintiffs actually filed and when they filed it. The Declaration of Dr. Georgopoulos that Plaintiffs filed as Exhibit A to the present motion is the identical declaration of Dr. Georgopoulos that was filed with Plaintiffs' opposition to Defendants' motion to exclude Dr. Georgopoulos's opinion. That declaration was filed on June 19, 2015.⁴ It is a declaration opposing Defendants' *Daubert* motion, and by no measure is it an expert report or supplemental expert report. Nevertheless, being well aware that expert declarations are perfectly appropriate and permissible in connection with *Daubert* motions, Defendants have characterized the declaration as a supplemental expert disclosure so that they can attempt to force-fit the declaration into Rule 26(e) and the court's scheduling order and claim Plaintiffs have somehow violated the rule and the order. Defendants' attempt

⁴ See ECF No. 788-1. The specific evidence cited in that declaration, evidence that Defendants claim is new in opposition to the instant motion, accompanied that declaration. See ECF No. 788-3, Page 3 of 3.

should be rejected.⁵

The Third Circuit has made clear that in determining the admissibility of expert evidence, it is proper for the court to consider not just experts' reports, but also declarations or affidavits, testimony, documents, learned treatises, and legal argument. *Oddi v. Ford Motor Co.*, 234 F.3d 136, 154 (3d Cir. 2000). In *Haskins v. First American Title Ins. Co.*, 2013 WL 5410531 (D.N.J. Sept. 26, 2013), Magistrate Judge Schneider explained the appropriate use of expert materials:

Rebuttal cannot be used to correct a party's oversights in its case-in-chief. An expert's rebuttal report should be stricken if it contains new opinions or information which contradicts the expert's initial report, but need not be stricken if it contains merely "an elaboration of and [is] consistent with an opinion/issue previously addressed" in the expert's initial report. *Pritchard v. Dow Agro Scis.*, 263 F.R.D. 277, 284–85 (W.D. Pa. 2009). The Third Circuit has noted that there is no "bright line rule" whereby every expert opinion "must be included in a preliminary report, or forever be precluded." *Hill v. Reederei F. Laeisz G.M.B.H., Rostock*, 435 F.3d 404, 423 (3d Cir.2006) (finding no error in lower court's admission of expert rebuttal testimony exceeding scope of expert's original report). While the applicable case law prohibits an expert from using rebuttal as a "do-over" of an original report,

⁵ Plaintiff notes that Defendants have not invoked any proper procedure for requesting that the court strike or exclude Dr. Georgopoulos's declaration, but have only argued in *Daubert* briefs that the declaration ought not to be considered. Plaintiff will nevertheless address Defendants' substantive arguments.

courts have refrained from “automatically exclud[ing] anything an expert could have included in his or her original report.” *Crowley*, 322 F.Supp.2d at 551; *see also*, *Reichold, Inc. v. U.S. Metals Ref. Co.*, No. 03–453, 2007 WL 1428559, at *13 (D.N.J. May 10, 2007) (reversing magistrate judge's ruling denying plaintiff's use of supplemental report, explaining that the report “address[ed] an important issue on which [expert] did not have the data to opine at the time of his original report.”).

2013 WL 5410531, at *2.

Magistrate Judge Schneider found *Crowley* to be particularly instructive. *Id.* at *3.⁶ He noted that in *Crowley*, the plaintiff submitted a transcript in response to the defendants' expert's report criticizing the methodology used by the plaintiff's expert. *Id.* The plaintiff's expert had not cited the transcript in her original report, and the defendants' argued she should be barred from using it in her rebuttal report. *Id.* The *Crowley* court found the defendants' theory to be “substantially more narrow than the Third Circuit's,” because rebuttal evidence “need only ‘repel’ the other expert's testimony.” *Id.*

Pritchard v. Dow Agro Sciences, 263 F.R.D. 277 (W.D. Pa. 2009), which *Crowley* cited, involved an expert's rebuttal declaration that cited a particular study showing an association between chlorpyrifos and non-Hodgkin's

⁶ *Crowley* is the same case discussed above that Defendants cite to argue that Dr. Yarwood's untested UV-A theory should be considered as rebuttal. Dr. Georgopoulos's declaration advances no such untested, unreliable theories and, in contrast to Dr. Yarwood's evidence, is *proper* rebuttal.

lymphoma, but which the expert had not cited in his expert report. *Id.* at 285.

The court noted that an expert declaration should only be stricken if it contains *new opinions* or information that *contradicts* the original expert report, but not where it is consistent with an opinion or issue previously addressed, and elaborates on or amplifies that opinion or issue. *Id.* at 284-85. Such is the case with Dr. Georgopoulos's declaration.⁷ While Defendants argue that Dr. Georgopoulos in his declaration lists additional articles to support his criticism of Dr. Yarwood's opinion, the source of Defendants' grumbling is not that Dr. Georgopoulos offers new or contradictory evidence, because he does not, but rather that Plaintiff's position is even stronger in light of the amplification contained in Dr. Georgopoulos's declaration. This is not a basis on which to exclude an expert declaration.

III. CONCLUSION

For the foregoing reasons, Dr. Yarwood should be precluded from testifying to his opinion on UV-A methodology, and if his report is to be presented to the jury for any purpose, it should be ordered to be redacted as Plaintiffs have proposed.

⁷ Indeed, Defendants' position is internally inconsistent, as they argue both that Dr. Georgopoulos, by his declaration, seeks to "inject *new* grounds" and also that he "*rehashes* his methodology and conclusions." *See* Defs' brief at 12 (emphasis added).

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Respectfully submitted:

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CERTIFICATE OF SERVICE

I certify that on this 27th day of July, 2015, I filed with the Court the accompanying Reply Brief in support of Plaintiffs' motion to exclude the testimony of Dr. Greg Yarwood, using the Court's CM/ECF system, and that service on all counsel of record was accomplished as a result.

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